AMENDMENTS

In the specification

In the specification, please replace the entire existing Abstract with the following text, in which the changes from the current abstract are shown with strikeout to indicate deleted text and underline to indicate newly added text:

The primary objective of the present method and apparatus is to provide a portable and new diagnosis system for ~~a quick and reliable~~ quickly and reliably examining tissue conditions. The method uses the most advance miniaturized ~~MOEM~~ micro-opto-electro-mechanical systems (MOEMS) system for generating a rapid variable optical delay line ~~to be able~~ capable of generating wideband terahertz pulses. The method ~~has objective to detect and analyze~~ detects and analyzes cancerous tissues by comparing a plurality of spectrum resolved images of suspected tissue without applying harmful agents into the tissue to facilitate interaction with illumination sources. The method employs non-evasive, real time terahertz imaging systems and techniques to diagnose tissue for detecting the presence of cancer. A map showing, which tissue is healthy and which is cancerous can aid in the accurate removal of cancerous tissue.

In the specification, please replace the second paragraph of the Brief Description of the Drawings on page 5 with the following text in which the changes from the current paragraph are shown with strikeout to indicate deleted text and underline to indicate newly added text:

FIGS. 2a-c are the simplified block diagrams of the system components outside of the diagnostic probe.

In the specification at page 5, please change the second paragraph of the Detailed Description as follows, where underline is used for insertion and strike-through for deletion:

> The pump light 13 will enter a micro-opto-electro-mechanical systems (MOEMS) rapid scanning optical delay line (RSOD) 16. The detail description of the MOEMS RSOD 16 is provided in a ~~co-pending~~ U.S. patent number 6,839,172 entitled "Enhanced sampling rate in time domain imaging using MOEMS scanning optical delay line" and its components are shown in FIG. 3. As shown in FIG.3, pump beam 13 will reflect beam light 17 by mirror 18 to a special design blazed grating 19. Beam 17 will split in zero and + 1 diffraction order beams 20. The beams 20

focus through a lens 21 on a MOEMS scanner mirror 22. MOEMS scanner 23 has potential to have large-size mirrors (more than 10 mm^2) and a surface flatness on the order of optical wavelength, as described in an article entitled "MOEM Scan Engine for Barcode Reading and Factory Automation" by M.E. Motamedi, et al published in SPIE Proceeding of Miniaturized Systems with Micro-optics and Micromechanics III, Vol., 3276, p.p. 66-80, 1998. The reflection beam 25 from scanner mirror 22 is setup to pass through the same lens 21 and refocus again to beams 26 arriving at a new location on grating 19, combining to a single beam. A bouncing mirror is mounted in proper location which returns the light beam 27 back through lens 21 and scanner mirror 22 and redirects the beam back from beam 17 and mirror 18 to the direction of beam 13. As the scanner mirror 22 relocates to a new location, the return beams 26 will move on the surface of the grating 19 from location 29 to another scanned location generating time delays of tens of picoseconds. The power required for operating the MOEMS RSOD 16 is fed through the HDP 1 connector 30 from control and display system 31.

The following is a clean copy of the second paragraph of page 5, provided herein in accordance with 37 CFR 1.121(b)(1)(iii):

The pump light 13 will enter a micro-opto-electro-mechanical systems (MOEMS) rapid scanning optical delay line (RSOD) 16. The detail description of the MOEMS RSOD 16 is provided in a U.S. patent number 6,839,172, entitled "Enhanced sampling rate in time domain imaging using MOEMS scanning optical delay line" and its components are shown in FIG. 3. As shown in FIG.3, pump beam 13 will reflect beam light 17 by mirror 18 to a special design blazed grating 19. Beam 17 will split in zero and + 1 diffraction order beams 20. The beams 20 focus through a lens 21 on a MOEMS scanner mirror 22. MOEMS scanner 23 has potential to have large-size mirrors (more than 10 mm^2) and a surface flatness on the order of optical wavelength, as described in an article entitled "MOEM Scan Engine for Barcode Reading and Factory Automation" by M.E. Motamedi, et al published in SPIE Proceeding of Miniaturized Systems with Micro-optics and Micromechanics III, Vol., 3276, p.p. 66-80, 1998. The reflection beam 25 from scanner mirror 22 is setup to pass through the same lens 21 and refocus again to beams 26 arriving at a

new location on grating 19, combining to a single beam. A bouncing mirror is mounted in proper location which returns the light beam 27 back through lens 21 and scanner mirror 22 and redirects the beam back from beam 17 and mirror 18 to the direction of beam 13. As the scanner mirror 22 relocates to a new location, the return beams 26 will move on the surface of the grating 19 from location 29 to another scanned location generating time delays of tens of picoseconds. The power required for operating the MOEMS RSOD 16 is fed through the HDP 1 connector 30 from control and display system 31.